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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,346	04/12/2004	Shek Fai Lau	SHPR-1361USJ	4739
29190	7590	07/05/2006		
BELL, BOYD & LLOYD LLC P.O. BOX 1135 CHICAGO, IL 60690-1135				
			EXAMINER CHIESA, RICHARD L	
			ART UNIT	PAPER NUMBER

1724

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



# Office Action Summary

Application No.

10/823,346

Applicant(s)

LAU ET AL.

Examiner

Richard L. Chiesa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8, 15 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 and 18-21 is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on June 6, 2006 has been entered.

### ***Oath/Declaration***

2. The declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The current declaration is defective because it does not list the applications upon which applicants now claim the benefit of priority under 35 USC 119(e) and 35 USC 120 in the first paragraph of the specification.

### ***Drawings***

3. In light of applicants' amendments to the claims, the drawings filed on April 12, 2004 are now acceptable to the examiner.

### ***Claim Rejections - 35 USC § 102/103***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicants are advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1 and 3 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 5,993,521 to Loreth et al. Loreth et al (note Figures 1-3) show an air cleaning device 20 with a housing 24-27, emitter electrode 31 secured to the base 25 of the housing, a plurality of collector electrodes 32, 33, and a barrier wall 37 made of insulative material adjacent to the base of the housing and located between the emitter electrode and collector electrodes (note col. 6, lines 34-42; col. 9, line 46 to col. 11, line 7, and col. 11, line 62 to col. 12, line 7) as claimed (35 USC 102a). Apparently, Loreth et al may not explicitly state that walls 37 are "barrier" walls. However, Loreth et al do

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mention in col. 10, lines 46-47 that “the air throughflow passage is delimited laterally” by these walls. Consequently, it is inherent or at least would have been readily obvious to one having ordinary skill in the art (35 USC 103a) in view of Loreth et al’s discussion that Loreth et al’s walls 37 are indeed “barrier” walls.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Loreth et al in view of U.S. Patent No. 4,094,653 to Masuda. Loreth et al, as described above in paragraph 7, disclose an air cleaner substantially as claimed with the possible exception of a lip on the barrier wall. In any case, Masuda (note the vertically extending section above walls 5 and 6 in Figure 2) teaches the use of a lip on a barrier wall in an air cleaner for the purpose of facilitating the collection of particulates (note col. 4, lines 21-31). It therefore would have been obvious to one of ordinary skill in the art to employ a lip on the barrier wall of the Loreth et al air cleaner in order to facilitate the collection of particulates removed from the air stream as taught by Masuda.

9. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claims 1, 2, 2, 1, 1, respectively in paragraphs 7 or 8 above, and further in view of U.S. Patent No. 5,584,915 to Broughton. The prior art, as described above in either one of paragraphs 7 or 8, discloses an air cleaner substantially as claimed with the apparent exception of a glass or ceramic insulative material. Broughton (note col. 3, lines 31-42) teaches the well-known use of glass or ceramic insulative materials in an electrostatic air cleaner for the purpose of spark prevention and for this same reason it would have been obvious to one of ordinary skill the art to employ such an expedient in either one of the prior art electrostatic air cleaners.

***Claim Objections***

10. Claim 1 is objected to because the phrase “; and” between “electrode” and the period at the end of the claim should apparently be deleted. Appropriate correction is required.

***Allowable Subject Matter***

11. Claims 15, and 18-21 are allowed.

12. As allowable subject matter has been indicated, applicants’ reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

***Response to Arguments***

13. Applicants’ arguments with respect to claims 1-8 have been considered but are moot in view of the new grounds of rejection applied in response to applicants’ amendments to the specification and claims.

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicants’ disclosure. The Sakakibara et al reference is cited as art of interest to also show barrier walls (note ref. num. 83-85 in Figure 5).

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15. Applicants' amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard L. Chiesa whose telephone number is (571) 272-1154.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane S. Smith, can be reached at (571) 272-1166.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1700 receptionist whose telephone number is (571) 272-1700.

Facsimile correspondence must be transmitted through (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Richard L. Chiesa  
June 30, 2006

*Richard L. Chiesa*

**RICHARD L. CHIESA  
PRIMARY EXAMINER  
ART UNIT 1724**

*June 30, 2006*